

AMENDED CLAIM SET:

1. (Currently Amended) A high-density detergent composition comprising 10 to 60% by weight of a surfactant composition having a weight ratio of an anionic surfactant to a nonionic surfactant of 4:10 or more and 10:0 or less,

wherein said surfactant composition comprises an alkali metal silicate and also comprises 15% or less by weight of sodium carbonate,

wherein the high-density detergent composition has a bulk density of from 600 to 1200 g/L, and has a total summation of a product of a mass base frequency W_i and a dissolving rate V_i of each group of classified granules obtained by classifying detergent granules by using a classifier, which satisfies the following formula (A):

$$\Sigma(W_i \cdot V_i) \geq 95(\%) \quad (A)$$

and wherein a mass base frequency of the classified granules having a size of less than 125 μm is 0.1 or less and a mass base frequency of the classified granules having a size of more than 710 μm and less than 1000 μm is 0.1 or less and each mass base frequency satisfies the relationship such that the mass base frequency of [classified granules having a particle size of 1000 μm or more] \leq [classified granules having a particle size of 710 μm or more and less than 1000 μm] \leq [classified granules having a particle size of 500 μm or more and less than 710 μm], wherein the classifier comprises a series of sieves having sieve-openings respectively of 2000 μm , 1410 μm , 1000 μm , 710 μm , 500 μm , 355 μm , 250 μm , 180 μm , and 125 μm , and a receiver, and the dissolving rate V_i ~~the dissolving rate V_i~~ is determined under the following measurement conditions:

supplying 1.000 g \pm 0.010 g of a sample to 1.00 L \pm 0.03 L of water at 5°C \pm 0.5°C having a water hardness of 4°DH, stirring in a 1 L beaker of which inner diameter is 105 mm, with a cylindrical stirring rod of which length is 35 mm and diameter is 8 mm, at a rotational speed of 800 rpm for 120 seconds, and thereafter filtering insoluble remnants by a standard sieve having a sieve-opening of 300 μm as defined according to JIS Z 8801, wherein the dissolving rate V_i of the classified granules is calculated by the following formula (a), i being each group of the classified granules:

$$Vi = (1 - Ti/Si) \times 100(\%) \quad (a)$$

wherein Si is a weight (g) of each group of the classified granules supplied; and Ti is a dry weight (g) of the insoluble remnants of each group of the classified granules remaining on the sieve after filtration.

2. (Currently Amended) A high-density detergent composition comprising 10 to 60% by weight of a surfactant composition having a weight ratio of an anionic surfactant to a nonionic surfactant of 0:10 or more and less than 4:10,

wherein said surfactant composition comprises an alkali metal silicate and also comprises 15% or less by weight of sodium carbonate,

the detergent composition having a bulk density of from 600 to 1200 g/L, wherein the high-density detergent composition has a total summation of a product of a mass base frequency Wi of each group of classified granules and a dissolving rate Vi of each group of the classified granules, which satisfies the following formula (B):

$$\Sigma(Wi \cdot Vi) \geq 97(\%) \quad (B)$$

and wherein a mass base frequency of the classified granules having a size of less than 125 μm is 0.08 or less and a mass base frequency of the classified granules having a size of more than 710 μm and less than 1000 μm is 0.1 or less and each mass base frequency satisfies the relationship such that the mass base frequency of [classified granules having a particle size of 1000 μm or more] \leq [classified granules having a particle size of 710 μm or more and less than 1000 μm] \leq [classified granules having a particle size of 500 μm or more and less than 710 μm], wherein the classifier comprises a series of sieves having sieve-openings respectively of 2000 μm , 1410 μm , 1000 μm , 710 μm , 500 μm , 355 μm , 250 μm , 180 μm , and 125 μm , and a receiver, and the dissolving rate Vi ~~the dissolving rate~~ Vi is determined under the following measurement conditions:

supplying 1.000 g \pm 0.010 g of a sample to 1.00 L \pm 0.03 L of water at 5°C \pm 0.5°C having a water hardness of 4°DH, stirring in a 1 L beaker of which inner diameter is 105 mm, with a cylindrical stirring rod of which length is 35 mm and diameter is 8 mm, at a rotational speed of 800 rpm for 120 seconds, and thereafter filtering insoluble remnants by a standard sieve

having a sieve-opening of 300 μm as defined according to JIS Z 8801, wherein the dissolving rate V_i of the classified granules is calculated by the following formula (a), i being each group of the classified granules:

$$V_i = (1 - T_i/S_i) \times 100(\%) \quad (\text{a})$$

wherein S_i is a weight (g) of each group of the classified granules supplied; and T_i is a dry weight (g) of the insoluble remnants of each group of the classified granules remaining on the sieve after filtration.

3. (Previously Presented) A process for preparing the high-density detergent composition of claim 1, comprising subjecting unclassified detergent granules comprising 10 to 60% by weight of a surfactant composition, having a weight ratio of anionic surfactant to nonionic surfactant of 4:10 or more and 10:0 or less, to classification operation; and adjusting a particle size of each group of the resulting classified granules, such that the formula (A) as defined in claim 1 is satisfied, and that a mass based frequency of the classified granules having a size of less than 125 μm is 0.1 or less.

4. (Previously Presented) A process for preparing the high-density detergent composition of claim 2, comprising subjecting unclassified detergent granules comprising 10 to 60% by weight of a surfactant composition, having a weight ratio of anionic surfactant to nonionic surfactant of 0:10 or more and less than 4:10, to classification operation; and adjusting a particle size of each group of the resulting classified granules, such that the formula (B) as defined in claim 2 is satisfied, and that a mass based frequency of the classified granules having a size of less than 125 μm is 0.08 or less.

5. (Previously Presented) A high-density detergent composition as in claim 1 or claim 2, wherein the counterions in said anionic surfactant comprise 5% by weight or more potassium counterions.

6. (Previously Presented) A high-density detergent composition as in claim 5, wherein said anionic surfactant comprises 1 to 50% by weight of said detergent composition.

7. (Previously Presented) A high-density detergent composition as in claim 6, wherein said anionic surfactant comprises 5 to 30% by weight of said detergent composition.

8. (Previously Presented) A high-density detergent composition as in claim 1 or claim 2, wherein said nonionic surfactant is a polyoxyethylene-polyoxypropylene-polyoxyethylene alkyl ether.

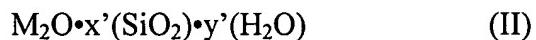
9. – 11. (Cancelled).

12. (Previously Presented) A high-density detergent composition as in claim 1 or claim 2, wherein a total sum of the sodium carbonate and the alkali metal silicate is 19% or more by weight of the detergent composition.

13. (Previously Presented) The high-density detergent composition of claim 1 or claim 2, wherein the alkali metal silicate comprises SiO_2 and M_2O , wherein M represents an alkali metal atom, and the $\text{SiO}_2/\text{M}_2\text{O}$ mole ratio in said alkali metal silicate is from 0.5 to 2.6.

14. (Previously Presented) The high-density detergent composition of claim 1 or claim 2, wherein said alkali metal silicate is crystalline.

15. (Previously Presented) The high-density detergent composition of claim 1 or claim 2, wherein said alkali metal silicate is represented by formula (I) or formula (II):



wherein, in formula (I) M stand for an element in Group IA of the Periodic Table, Me stand for one or more elements selected from Group IIA elements, Group IIB elements, Group IIIA elements, Group IVA elements, and Group VIII elements of the Periodic Table, y/x is from 0.5 to 2.6, z/x is from 0.001 to 1.0, w is from 0 to 20, and n/m is from 0.5 to 2.0, and in formula (II) M stands for an alkali metal, x' is from 1.5 to 2.6, and y' is from 0 to 20.